

REMARKS

The Final rejection mailed December 18, 2008, has been carefully reviewed. The claims in the application remain as claims 17-19, and the applicants respectfully submit that these claims define patentable subject matter warranting their allowance. Accordingly, entry of the amendments presented above, favorable reconsideration and allowance are all respectfully urged.

Claims 17-19 have been again (and are finally) rejected as obvious under Section 103 from Wilmott in view of Breton and JP '684. This rejection is again respectfully traversed for the reasons of record, respectfully repeated by reference, and for the additional reasons noted below.

First, applicants propose to amend claim 17 as indicated above to change "L-ascorbic acid" to "a saccharide derivative of L-ascorbic acid", support being found for example in applicants' specification in the paragraph spanning pages 4 and 5, especially noting page 5, lines 7-12, as follows:

Among the above L-ascorbic acids, saccharide derivatives of L-ascorbic acid including L-ascorbic acid 2-glucoside and L-ascorbic acid 2-glycoside are most preferably used in the present invention because of their advantageous ability of inducing collagen production, as well as their safeness and stability.

Thus, the claims now specify a use of the preferred compounds.

The rejection states that Wilmott teaches a method of improving the appearance of the skin comprising administering ascorbic acid. Wilmott is further said to teach "the essential role played by ascorbic acid in the hydroxylation of proline and lysine, hence the formation and maintenance of collagen has been investigated widely and is well understood". Recognizing that Wilmott does not disclose or teach a method for enhancing collagen with a fatty acid, the PTO relies on Breton which is said to teach a method for combating extrinsic cutaneous aging by administering to an individual an effective amount of at least one 10-hydroxy-2-decenoic acid compound, concluding that it would have been obvious to one of ordinary skill in the art at the time of the invention was made that a method utilizing a pharmaceutical composition combining ascorbic acid and 10-hydroxy-2-decenoic acid would similarly be used in enhancing collagen production, reaching claims 17 and 19 and making them obvious. Applicants respectfully disagree.

Applicants believe and respectfully submit that it would not have been obvious for a skilled person to combine L-ascorbic acid taught by Wilmott and 10-hydroxy-2-decenoic acid taught by Breton to enhance collagen production by ascorbic acid, because there is nothing in Breton that would motivate

the skilled person to combine 10-hydroxy-2-decenoic acid with L-ascorbic acid to enhance the production of collagen, and no reason to do so.

As indicated by the examiner, Breton teaches extrinsic aging causes detrimental clinical changes, histopathological changes, and the degeneration of the collagen fibers. Therefore, it is clear that Breton teaches that 10-hydroxy-2-decenoic acid is effective to prevent the degeneration of the collagen fibers. However, it should be noted that preventing the degeneration of the collagen fibers is not at all the same as, and should be distinguished from, the production of collagen. In other words, Breton teaches that 10-hydroxy-2-decenoic acid has a function of preventing the degeneration of collagen fibers, which is different from the function of L-ascorbic acid disclosed in Wilmott, i.e. enhancing the production of collagen. No one would have found any reason to combine two compounds which have different and unrelated functions.

In this regard, as shown as fact in Experiment 2 (pages 21-23) and Figure 1 of the present specification, 10-hydroxy-2-decenoic acid per se does not show the action of enhancing collagen production, thereby confirming what applicants state above.

Contrary to this, as shown in Experiment 3 (pages 23-24) and Figure 4 of applicants' specification, the production of collagen by a saccharide derivative of L-ascorbic acid, such as AA2G, is drastically increased when 10-hydroxy-2-decenoic acid is added. This is very surprising! Furthermore, it should be noted that 10-hydroxy-2-decenoic acid enhances the collagen production more when it is combined with a saccharide derivative of L-ascorbic acid, such as AA2G, than when it is combined with L-ascorbic acid (please see Figure 4). This is a quite unexpected result.

It is therefore submitted that claims 17 and 19 would not have been obvious from Wilmott in view of Breton.

The PTO further asserts that it would have been obvious to one of ordinary skill in the art at the time of the present invention, that in view of Japanese Publication 10-147514, 10-hydroxy-2-decenoic acid is able to be purified from royal jelly, thus rendering instant claim 18 obvious. Applicants again respectfully disagree.

Japanese Publication '514 simply discloses that 10-hydroxy-2-decenoic acid is able to be purified from royal jelly, but discloses nothing about collagen production. Since claim 18 is dependent from claim 17, which is not obvious from Wilmott in view of Breton, it is believed and respectfully

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submitted that claim 18 would not have been obvious from  
Wilmot in view of Breton and Japanese Publication '514.


Withdrawal of the rejection is in order and is  
respectfully requested.

All issues raised in the final action are addressed  
above in a manner which should lead to patentability of the  
present application. Such is respectfully requested.

Respectfully submitted,

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